

**Paper reference 31760H**

**Pearson BTEC**

**Level 3**

**Total Marks**

**Nationals Extended Certificate,  
Foundation Diploma,  
Diploma, Extended Diploma**

**INFORMATION TECHNOLOGY**

**Unit 1: INFORMATION TECHNOLOGY  
SYSTEMS**

**Time: 2 hours plus your additional  
time allowance**

**In the boxes below, write your name, centre  
number and learner registration number.**

<b>Surname</b>						
<b>Other names</b>						
<b>Centre Number</b>						

<b>Learner Registration Number</b>						

**Y62515A**



**Pearson**

**YOU MUST HAVE  
Nil.**

**YOU WILL BE GIVEN**

- **A separate Data Book.**

**You do not need any other materials.**

**INSTRUCTIONS**

- **Answer ALL questions.**
- **Answer the questions in the spaces provided in this Question Paper or in the Data Book – there may be more space than you need.**

**INFORMATION**

- **The total mark for this paper is 90.**
- **The marks for EACH question are shown in brackets – use this as a guide as to how much time to spend on each question.**

**(continued on the next page)**

## ADVICE

- **Read each question carefully before you start to answer it.**
  - **Try to answer every question.**
  - **Check your answers if you have time at the end.**
- 

**Question 1 is on the next page**

**ANSWER ALL QUESTIONS.  
WRITE YOUR ANSWERS IN THE  
SPACES PROVIDED.**

**1. Hazel is a freelance photographer.**

**She is home based and travels to  
photo shoots with clients.**

**(a) Hazel wants to buy a new laptop.**

**Look at the table for  
Question 1 (a) in the separate  
Data Book.**

**The table shows part of the  
specification of two laptops that  
Hazel is considering buying.**

**(continued on the next page)**

**Question 1 (a) continued**

- (i) Hazel wants to share photographs with clients.**

**Laptop B has a DVD/CD drive. This would enable Hazel to store photographs on a DVD/CD.**

**Identify TWO OTHER storage devices that Hazel could use with Laptop B.**

**(2 marks)**

**STORAGE DEVICE 1** \_\_\_\_\_

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**Question 1 (a) (i) continued****STORAGE DEVICE 2** \_\_\_\_\_

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**Question 1 (a) continued**

- (ii) Explain TWO drawbacks of using DVD's to share photographs with clients.  
(4 marks)**

**DRAWBACK 1**

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## **Question 1 (a) (ii) continued**

# DRAWBACK 2 \_\_\_\_\_

**(continued on the next page)**

## Question 1 continued

- (b) Hazel has set up a wireless local area network (LAN) at home, which she shares with members of her family.**
- (i) Explain TWO benefits to Hazel and her family of using a LAN.  
(4 marks)**

**BENEFIT 1** \_\_\_\_\_

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## **Question 1 (b) (i) continued**

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**BENEFIT 2** \_\_\_\_\_

**(continued on the next page)**

# Turn over

**Question 1 (b) continued**

**(ii) Other members of the family sometimes use Hazel's laptop. Hazel must keep client data stored on her laptop secure.**

**Explain TWO methods Hazel could use to prevent family members accessing client data on her laptop.**

**(4 marks)**

**METHOD 1**

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## **Question 1 (b) (ii) continued**

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## METHOD 2

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# Turn over

**Question 1 continued**

- (c) Hazel will buy her new laptop from a reputable supplier who provides after sales IT support.**

**The IT support is provided using remote desktop technology.**

**Explain TWO reasons why Hazel may be reluctant to allow an IT support technician to access her laptop remotely.**

**(4 marks)**

**REASON 1** \_\_\_\_\_

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**Turn over**

**Question 1 (c) continued**

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**REASON 2**

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**Question 1 (c) continued**

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**Question 1 continued**

- (d) Laptop A has 1 TB HDD and  
Laptop B has a 256 GB SSD.**

**Discuss the characteristics of  
the TWO internal storage devices.  
(6 marks)**

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**Question 1 (d) continued**

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## Question 1 (d) continued

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(Total for Question 1 = 24 marks)

2. HJAC is an accountancy firm with a head office and several regional offices.

(a) Staff at the regional offices communicate with head office via video calls over the internet.

The quality of the video calls depends on the bandwidth and latency of the broadband connection.

(i) Describe the terms ‘bandwidth’ and ‘latency’.  
(4 marks)

**Bandwidth**

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**20**

**Question 2 (a) (i) continued**

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**Latency**

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**Question 2 (a) (i) continued**

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**Question 2 (a) continued**

- (ii) Explain TWO factors that can affect bandwidth and latency.  
(4 marks)**

**FACTOR 1** \_\_\_\_\_

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**Question 2 (a) (ii) continued**

**FACTOR 2**

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**Question 2 (a) continued**

**(iii) It is important to keep sensitive data secure during transmission between head office and regional offices.**

**HTTPS is one method of securing data during transmission.**

**Explain TWO ways HTTPS keeps data secure during transmission.**

**(4 marks)**

**WAY 1**

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**Turn over**

**25**

**Question 2 (a) (iii) continued**

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**WAY 2**

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**Question 2 (a) (iii) continued**

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## Question 2 continued

**(b) HJAC has a Code of Practice, outlining the moral and ethical responsibilities of staff in all areas of business.**

**The Code of Practice includes guidance on the acceptable use of IT.**

**Discuss the guidance that should be given to staff on the acceptable use of IT.**

**(6 marks)**

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**Answer pages continues on the next 3 pages**

**Question 2 (b) continued**

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**Question 2 (b) continued**

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## Question 2 (b) continued

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(Total for Question 2 = 18 marks)

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**3. Flower Chain supplies plants to stores in the north of England.**

**Plants are transported to the stores in vans. The vans are temperature controlled. The temperature is monitored to provide ideal conditions for the plants.**

- The temperature in the vans must be kept between 22°C and 28°C.
  - If the temperature is below 22°C a heater is turned on.
  - If the temperature is 28°C or above a fan is turned on.
- (a) On the blank space provided for Question 3 (a) in the separate Data Book, draw a flow chart to show the process for maintaining the temperture in the van.  
**(6 marks)**

**(continued on the next page)**

**Question 3 continued**

- (b) Each van is equipped with a navigation system.**
- (i) Describe how a navigation system works out the location of a van.  
(4 marks)**
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**Question 3 (b) (i) continued**

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**Question 3 (b) continued**

- (ii) The navigation system gives the driver the location of each store, based on an address or postcode.**

**Describe OTHER features of a navigation system that will help the driver make deliveries efficiently.**

**(4 marks)**

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**Question 3 (b) (ii) continued**

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## **Question 3 continued**

- (c) The navigation system has a graphical user interface (GUI).**

**Discuss the features of a GUI that make it the most appropriate type of interface for a navigation system.**

**(6 marks)**

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**Question 3 (c) continued**

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## **Question 3 (c) continued**

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## Question 3 continued

- (d) Flower Chain wants to sell plants directly to the public via its website.

In order to enhance customer satisfaction, the website should be available 24/7.

Discuss OTHER factors that would enhance customer satisfaction when using the website.

(6 marks)

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**Question 3 (d) continued**

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**Question 3 (d) continued**

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**Question 3 (d) continued**

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**(Total for Question 3 = 26 marks)**

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**4. Individuals and organisations around the world make extensive use of information technology (IT) systems.**

**(a) There is a growing awareness of environmental issues relating to the use of IT.**

**Discuss how environmental concerns impact on the use of IT by individuals and organisations.**

**You should consider:**

- hardware
- energy consumption
- recycling
- working practices.

**(10 marks)**

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**Answer space continues on the next 4 pages**

**Question 4 (a) continued**

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**Question 4 (a) continued**

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**Question 4 (a) continued**

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**Question 4 (a) continued**

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**Turn over**

## **Question 4 continued**

**(b) Legislation relating to the use of IT systems impacts on individuals and organisations.**

**Assess the role of current legislation in protecting users and their data from attack and misuse.**

**You should consider:**

- computer misuse**
- copyright**
- protection of data.**

**(12 marks)**

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**Answer space continues on the next 5 pages**

**Turn over**

**Question 4 (b) continued**

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**Question 4 (b) continued**

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**Question 4 (b) continued**

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**Question 4 (b) continued**

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## **Question 4 (b) continued**

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**(Total for Question 4 = 22 marks)**

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**TOTAL FOR PAPER = 90 marks**

**END OF PAPER**

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